Before the
Federal Communications Commission
Washington, DC 20554

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| In the Matter of | ) | |
| | ) | MB Docket No. 07-91 |
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| Third Periodic Review of the Commission's | ) | |
| Rules and Policies Affecting the Conversion | ) | |
| to Digital Television | ) | |
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## John M. Willkie's Opposition to Petitions for Reconsideration filed by Harris Corporation, Association for Maximum Service Television (MSTV) and National Association of Broadcasters (NAB) and Cohen, Dippell and Everist, P.C.

John Willkie, doing business as EtherGuide Systems, files this partial Opposition to Petitions for Reconsideration filed by Harris Corporation (Harris), Association for Maximum Service Television (MSTV) and National Association of Broadcasters (NAB), and Cohen, Dippell and Everist, P.C. (CDE) in the above-captioned proceeding.

Executive Summary

EtherGuide Systems is an independent commercial vendor of PSIP generators and ATSC transport stream validation systems, and I am alarmed that several the referenced petitions for reconsideration might mislead the Federal Communications Commission about the state of PSIP generation systems and their interfaces to automation and traffic systems.

EtherGuide Systems did not comment or provide reply comments during this proceeding because I did not want to state support for most of the PSIP provisions included in the Notice of Proposed Rulemaking, as they would cause my existing customer and prospects to spend more money, and I was disappointed in the Commission delay in this proceeding, which is reflected by the Second Biennial Review becoming the Third Periodic Review, after a delay of three years. I realize the Commission was involved in serious work in the meantime, including trying to protect birds from radio towers with scant or junk science as a foundation.

I must note first that a large number of radio stations in large, medium and small markets have adopted the voluntary RDS protocol, and the announcement features of the optional HD Radio system and use these technologies to inform listeners and prospects as to the title of songs aired and the artist of each recording they air. I also note that the song titles, in my experience, always seem to change within a mere second or two of the transition from one song to another. Knowing just a bit about the economics and workflow of music radio stations, I doubt that musical selections are slotted for airing days or weeks in advance, and that radio station employees do not enter this information manually in real time.

Yet, Harris, MSTV/NAB and CDE state, in their petitions for reconsideration, that the technology to provide essentially the same quality of viewer information and functionality does not exist within a broadcast television plant and that it may not ever exist. These are false assertions: the equipment and functionality needed to automatically and manually update PSIP listings exists and has existed for several years, from a variety of vendors of PSIP generators and automation

systems.  The sad fact is that, for various reasons, television broadcasters have not adopted these systems and have not seriously embraced the need to electronically inform their viewers of their program offerings.  Delaying the imposition of the PSIP rule changes (which all the petitioners in one form or another supported in comments) would only delay the date that television broadcasters "get real digital" like many radio stations have done so, albeit on a voluntary basis.

### The new PSIP rules will require all television stations buy automation systems

As a practical matter, the new PSIP rules require every television station to have an automation system to achieve compliance.  I did not see this aspect reflected in the NPRM or report and order, nor did I see any commenter in this proceeding address this 'collateral effect' of requiring more accurate program listings.  As currently offered, automation systems are expensive and are seldom found in medium and small market television stations.  However, the Commission has the time honored ability to waive elements of its rules on good cause shown, and I believe that is the best way to address the financial concerns of stations that cannot afford to buy or upgrade automation systems before the end of May of this year and for some time afterwards.

EtherGuide Systems, at least at this point, is not a vendor or developer of broadcast automation systems.  I do, however, make and have installed a currently operating instance of EtherGuide Emissary, a PSIP generator, and EtherGuide Prophecy, a PSIP management system, and will be marketing shortly an affordable ATSC transport stream monitoring and validation system.  All of my systems support interfacing with traffic and automation systems via the Programming Metadata Communications Protocol (PMCP, also known as ATSC A/76) and via proprietary interfaces.  I am have been a member of the ATSC specialist group on program metadata, TSG/S1 since shortly after the PMCP protocol was released as a candidate standard more than four years ago.  The comments I make here reflect my views and do not necessarily reflect those of any committee or group of which I am a member.

To date, I have interfaced EtherGuide Emissary/EtherGuide Prophecy to PMCP and three proprietary interfaces propounded by other vendors, as well as to an open-source protocol that I call Broadcast Simple Schedule Data Format (BSSDF.)

Interfacing to other protocols is relatively simple; the issues are all in the age and quality of information in traffic or automation systems, the currency of the data, and the general lack of program information.  I believe that all of these issues are simply in the province of the attitude of broadcast station owners and operators.

### The Commission need not delay the new PSIP rules because Harris missed the wind-shift

Harris Corporation, in its Petition for Reconsideration, says that its ADC subsidiary is the largest vendor of automation systems among U.S. television stations.  I am not able to independently verify that claim, but I do note that history is replete with instances of market leaders that rested on their laurels and lost their market position due to ignoring the regulatory or market needs of customers.

Harris, in their petition for reconsideration, states that

"Broadcasters will not be able to implement the ATSC PSIP standard adopted in the 3rd Report &
Order by May 30, 2008 because the product is unavailable."

Yet, note the lede paragraph from this Harris press release of April 18, 2005
http://www.harris.com/view_pressrelease.asp?act=lookup&pr_id=1580

"Harris Corporation's (NYSE:HRS) Broadcast Communications Division (BCD), a proud

Supporter of one of the ATSC's newest initiatives, PMCP (Programming Metadata
Communication Protocol), will demonstrate another industry first for the standard at
NAB2005 – the ability to send PMCP updates from traffic systems to Program and
System Information Protocol (PSIP) generators. This new capability, which follows on
last year's successful demonstration of the ability to provide last-minute updates from
Harris' D-Series Automation to PSIP generators via PMCP (another industry first),
will be shown in the Harris Software Systems booth (SU10048) and at the
ATSC's "DTV Hot Spot," both on the upper level of the Las Vegas Convention Center's
South Hall."

Ah, but Harris, in their filing asserted that their ADC unit wouldn't be ready to install systems to
deal with real-time program changes until later this year.  Odd that they didn't mention their Harris
Software or OSI units, both of which have offered, and in the case of OSI, I believe have installed
PMCP-compliant systems at customer sites.

However, this flyer for the ADC PSIP Manager, dated 2007 states:

"PSIP Manager™, a currently available, optional client feature of the H-Class™ ADC™
playout
automation system Release 11, enables the automatic tracking and forwarding of PSIP
information,
eliminating manual tracking operation or intervention."

And, these gems "Guarantees EPG event schedule in frame accuracy", followed by
"Reflects start-time changes for events following a live event immediately after live event ends"

They guaranteed it yet now they say they cannot do it!

Even though it isn't stated explicitly in their filing, one of the issues for Harris is that the BXF
protocol (SMPTE Standard 2021 or BXF, which has been developed by SMPTE's S22-WG10
subcommittee, of which I was a charter member) hasn't been published yet, but it should be
shortly.  S22-WG 10 was founded by a Harris Corporation executive, who serves as Chairman.

Despite the finality of the S2021 standard, several vendors have been able to sell, install and
currently have operating BXF systems.  These vendors have apparently decided to update their
installations as needed once the standard has been finalized.

The automation system vendors that have or offer BXF and PMCP compliant systems include
Florical Systems, Sundance Digital, VCI, Myers, and Wide Orbit.

It seems to me that Harris has tried to hide the weasel in their petition.  Updating PSIP generators
doesn't require the use of the BXF protocol which is pending approval by SMPTE, but the PMCP
protocol which has already gone through one minor and one major backwards-compatible
revision.

I'm not smart or prescient enough to know if Harris misstated facts in their earlier press releases
as opposed to their petition for reconsideration.  However, I do know that they have misstated
and obscured facts.

The commission should not delay adoption of the new PSIP rules because Harris has been
uninterested or unable to sell PMCP-compliant traffic and automation systems.

MSTV/NAB and CDE repeat these assertions about the availability of suitable equipment.  While
the systems to dynamically update PSIP have not been widely adopted to date, this is because
broadcasters have not seen a market or regulatory need to do so.  Delaying the new PSIP rules

will only give broadcasters another reason to delay the inevitable while they continue to mislead viewers and prospects of the programming they offer.

## Event Information Tables populated with actual event data is already required

Cohen, Dippell and Everist, P.C., asserts in their Petition for Reconsideration that it is permissible, under current FCC rules, to transmit Event Information Tables (EITs) in PSIP that do not list actual program events.  Indeed, I have been told this by a high-ranking engineer for Triveni Digital, the current market leader in PSIP generators.

MSTV/NAB in their petition for reconsideration, asserts that there is no requirement in ATSC A /65B for program listings to be accurate, or that an update schedule is mandated.  These are misleading or false statements.

If you read the version of the ATSC A/65B protocol that was previously incorporated by reference by the FCC, one is provided this definition of an "event."

> "event A collection of elementary streams with a common time base, an associated start time, and an associated end time. An event is equivalent to the common industry usage of "television program."
> *(ATSC A/65B, March 18, 2003, pp. 14)*

> On page 19, this text appears:

> "Each of the Event Information Tables (EITs) lists TV programs (events) for the virtual channels described in the VCT."

And
> "Consequently, the next three synchronization rules shall be followed when EIT tables are prepared."

> …

> "EIT-0 lists all of the available events for the current 3-hour time segment."

The only way I can jibe the CDE and MSTV/NAB assertions with the language above is that an event can be the "television program(s)" that a broadcaster wanted to air, but even that is belied by the language.

The commission is right to emphasize that what a broadcast station is actually airing is what should be contained in Event Information Tables.  Indeed, the Commission, in the NPRM and Report and Order in this proceeding emphasized that they were only clarifying the existing situation, not changing it.

Misleading viewers at the point of contact is a bad idea, but one that is apparently encouraged by MSTV/NAB, Harris and CDE.  If small-market radio broadcasters can provide timely events of dozens of songs in a couple of hours, television broadcasters can provide timely information on dozens of 'events' within a day.

## Stations always label breaking news on-screen, but they can't do it in PSIP?

In their petition for reconsideration, MSTV/NAB asserts that stations cannot spend the time to update PSIP listings to reflect breaking news, and state that the staff will be busy covering the event.  Part of that coverage includes providing "lower third" banners branding the breaking news event ("Firestorm 2007" was a recent one in the San Diego area) and continually updating

bottom-line crawls.  That they should also update their transport stream EPG to reflect the firestorm and not list "Oprah" is simply a 'no-brainer.'

### The HDTV/SDTV labeling rules are relatively easy to implement with the existing PSIP standard

I agree that the PSIP specification does not provide for a specific field to denote whether a particular televised event is in HDTV or SDTV.  However, it is clear to me that this information can be provided in the title field of a mandatory Event Information Table (EIT) or in the event description field provided by optional Extended Event Text Tables (EETTs).  Without using Huffman compression, the title field is limited to 247 characters, and the description field is limited to 4083 characters.  Surely the inclusion of "(SDTV)" or (HDTV) when a station is showing a swiping banner labeling the event as something else can be accommodated by PSIP system vendors.

This particular aspect has required me to revise the software in EtherGuide Emissary.  I have had to add a check box in the "default event" form of a program service for "HDTV program transmitted in SDTV" and the same in the form used to describe an event, and another check box that permits the inserted text to be appended to the event title rather than prepended to the event description.  I am the only employee at my company; I'm sure this was easier for the other vendors to implement.

Without this requirement, those broadcasters that down-convert HDTV events to SDTV would be misleading their viewers when their network swipes "HDTV" across the bottom of the screen at the beginning of an event.  The "where available" tag line that follows in small print are weasely legalese.

### AC-3 descriptor issues

ATSC A/65C requires the use of the AC3_audio_stream_descriptor in place of the AC3_audio_descriptor that was incorporated by reference in A/65B.  I believe that adoption of the later version of the descriptor has great benefits, including incorporation of language description.  In the fourth quarter of 2007, in anticipation of the new descriptor, I made modifications to my central database and software to accommodate an orderly change in descriptors when use of the new form is required by the Commission.  Although I haven't tested the change over extensively, I believe I can make it happen – without customer intervention – on a three hour notice.

I have been told by customers and prospects that Triveni Digital is requiring an expensive software upgrade – and has announced they will no longer support earlier versions of their PSIP generators at some point later this year.  As most of these earlier units are incapable of providing a reliable PSIP service over an extended period of time, it is in the interest of all to replace them all with reliable EtherGuide Emissary units.

For stations that cannot find their way to upgrade their defective or non-compliant PSIP generators, the waiver process (see below) would appear to be available.

### Bad Assumptions by MSTV and NAB aren't reasons to delay the new rules

The MSTV/NAB petition set forth:

> "As set forth in their comments in this proceeding, MSTV and NAB support the Commission's inclusion of the ATSC's new PSIP standard (A/65C) in its rules. At the time that they filed their comments, however, MSTV and NAB anticipated that broadcasters would be able to comply with the new standard by the time it was implemented by the Commission.

> "In order to implement the new PSIP standard, most broadcasters will need to install

software and/or hardware upgrades to their PSIP generators. Ordering and installing these upgrades in order to deploy the new standard will take a significant amount of time, especially for smaller stations whose resources may already be strained with the digital buildout issues associated with the transition."

This argument is utterly foolish if not merely delusional. It was simply foreseeable that the software upgrades of which they speak would be required by the mandatory ISO-639 language bytes in the new AC-3 descriptor. MSTV/NAB favored the new descriptor, and they wanted them to be in place on March 1, 2008. Nothing has changed, except perhaps feedback from their voting members, since their comments were filed. Now, they want it delayed, but lack any new reason, justification or rationale for that delay.

## Live program listing changes are available and affordable today

In their petition, MSTV/NAB states:
"We believe that rapid EIT updates will be possible someday, but that they will require automated communications systems which are not yet on the market."

This is simply belied by the facts. TitanTV.com provides, using live PMCP connections, live updates of programs (even sports overruns) to Sinclair Broadcasting, or will in very short order. Sinclair has stations in all mainland time zones save the Pacific time zone, and is has stations affiliated with all the U.S. terrestrial networks. I don't know what Sinclair pays TitanTV.com for the live updates, but I know TitanTv.com charges $50 per virtual channel per month for their standard listing service.

The other vendor of program listing information is Tribune Media Services, which has a similar pricing structure. TMS tells me that they can provide program updates as frequently as a station requires them. Currently TMS doesn't support the PMCP protocol.

## Waivers from the new PSIP rules should be entertained

It is quite true that these rules will hit medium and smaller market station the hardest, but more than a few large market stations are interested in providing real-time PSIP – as opposed to real-time updating of commercial messages -- even if their equipment can handle it. The new rules will induce all to 'get real (time.)'

The appropriate mechanism for stations that feel they cannot meet the new PSIP requirements by the end of May of this year is to file individual waiver requests with the Commission. Indeed, with more than two decades of experience making filings with the Commission, I will be willing to assist any customer needing such a waiver requests. I suspect that even Harris, if it desires to keep a customer while they get their previously announced system working in the real world, can do the same.

On good cause shown, the Federal Communications Commission will grant waiver requests, and I believe that lack of, or an inability to buy and install and put into service an automation system before June 2008 sounds like 'good cause' to me.

Sadly, many stations with PMCP-compliant traffic or automation systems will use a delay in the effective date of the rules to delay implementing the rules as well.

Respectfully Submitted

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